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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,424	11/13/2001	Robert A. Saunders	00885	3026

26285 7590 05/12/2004

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EXAMINER
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ISSING, GREGORY C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/008,424

Applicant(s)

SAUNDERS ET AL.

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 5, 11, and 14-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is not further limiting since all of the limitations defined therein are already set forth in claim 1; the display indicates the BER and C/N values that were calculated by the CPU, thus, the two are inherently coupled, and the whole device is directed to assessing the degree of alignment between the antenna and the satellite including the overall quality determined from the BER and C/N values.

Claim 11 is indefinite due to a lack of a proper antecedent basis with respect to "the junction box."

Claim 14 is indefinite since it is not clear what the distinction is between the claimed "indicator means . . . for providing at least one indicator indicating the degree of alignment" and the "display means (that) visually displays the BER value and the C/N value." Claim 15 appears to set forth that the indicator is a visual indicator that corresponds to the display.

Claim 19 is not clearly set forth since it is not clear how the visual indication of the degree of alignment is based on the calculated BER value, the calculated C/N value, and the calculated overall quality. The overall quality, as best understood, is a determination based on the two values of BER and C/N. Thus, what indication of the degree of alignment is visually provided based on all three values?

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In claims 14-18, it is not clear what the distinction is between the added "display means" and the "indicator means." Furthermore, the language "providing at least one indicator" and the added language "displays the BER value and the C/N value," appears to be contradictory.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogelstrom in view of Fukazawa et al.

Fogelstrom teaches an antenna alignment method and device including a display on a TV screen or on a portable unit wherein the received signal level (AGC) is measured and displayed, and subsequently, signal quality (BER) is measured and displayed. Fogelstrom differs from the claimed subject matter since the AGC is measured and displayed as opposed to the claimed C/N value. Fukazawa et al teach the advantages of the use of C/N values instead of AGC values as a determinant of the quality of the received signal, see col. 1, lines 15-59, and col. 5, lines 49-51, e.g. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fogelstrom by substituting a measure/display of a C/N value rather than an AGC value in view of the teachings of Fukazawa et al. The dependent claims

Applicants allege that Fogelstrom in view of Fukazawa et al fail to teach or suggest the display of C/N and BER values. This is not convincing since Fogelstrom clearly displays multiple quality indications in the form of AGC and BER and Fukazawa et al clearly indicate the advantages of the use of C/N instead of AGC as an indication of quality, thus making the

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substitution obvious. Applicant's mere allegation of the failure of Folgestom in view of Fukazawa et al to teach the subject matter is not convincing and its statement regarding the art of the previous first rejection is not applicable.

5. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holliday in view of Shintani, and either one of Fogelstom or Shigihara et al.

Holliday teaches a hand-held antenna alignment meter comprising a portable housing 1 having a display 11, a CPU 6 located within the housing, a receiver 2 for frequency tuning as well as providing received data bits, and an internal power supply 15 in the form of replaceable or rechargeable batteries which may be coupled to the CPU for monitoring displayable battery status. The display is capable of indicating satellite ID, signal strength, and bit error rate data so as to enable the installer to align the antenna to the satellite. Additionally, an audible signal may be output by suitable means.

Holliday differs from the claimed subject matter since the overall quality of the signal is not disclosed as being based on a BER value and a C/N value. Shintani teaches the conventionality of determining overall quality for antenna alignment on the basis of both a BER value and a C/N value to more accurately determine alignment of an antenna toward a satellite as well as providing an indication visually/audibly. Each of Fogelstom and Shigihara et al teach the conventionality of displaying multiple, quality indicators on an alignment device to aid in antenna alignment.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Holliday by using a weighted combination of plural quality parameters to more accurately align the antenna in view of the teachings of Shintani. Moreover,

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it would have been obvious to the skilled artisan to further modify Holliday by visually indicating each of the quality parameters measured in view of the teachings of either one of Fogelstom or Shigihara et al so as to provide a more accurate form for antenna alignment.

In view of the fact that the alignment meter of Holliday is hand-held and intended to be operated outdoors, it would been obvious to a skilled artisan to include an earpiece/jack with the meter so as to clearly identify alignment using audible indicating means even when there is a substantial amount of background noises, as in urban environments. Lastly, as in most portable/hand-held electronic devices, particularly in the field of installers, there is a clear desire to provide some form of attaching means so as to allow the user/installer to attach the device to a belt or over-the-shoulder to allow safe and hands-free carrying to enable the installer use of both hands when climbing into position to adjust/align a satellite antenna. Thus, the use of a support strap or hook to the housing would have been an obvious modification to the device of Holliday.

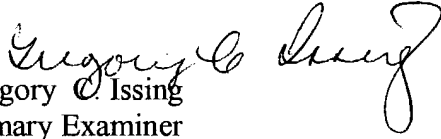
The applicants previously argued that a display visually indicating a BER value and a C/N value was not known and/or suggested in the prior art. This argument is not convincing in light of the various cited references that show the combined use of both BER and C/N ratio in a determination of overall quality as well as the display of plural alignment parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (703)-306-4156. The examiner can normally be reached on Mon-Thurs 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (703)-306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory C. Issing  
Primary Examiner  
Art Unit 3662

gci  
5/10/04